



## **Appendix B – Mitigation Strategy Documentation**



ORIGINAL PLAN ACTIONS, NOW DELETED	
Original Action	Explanation
Action 11.A.2 Continue to ensure the involvement of industry, fire, law enforcement and other key players in the Arizona State Emergency Response Commission.	Not in list of original actions, ASERC unaware of. ASERC has other actions.
Action 9.B.4 Develop and improve the system of coordination and communication of these findings, trends and observations with other federal, state and local agencies that have similar or related interest.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 9.C.5 Ensure incorporation of public health emergency response plans into the Arizona State Emergency Response and Recovery Plan.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 9.B.3 Encourage counties to conduct/enhance environmental/epidemiological surveillance activities in areas identified as being of high public health importance & related to environmental factors such as; air quality, public water systems & water/ wastewater treatment plant operations, food safety & protection & vector control activities.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 9.B.5 Perform joint ventures and activities related to communicable disease outbreaks and vector infestations, such as the response activities to Nigleria fowleri, Norwalk virus, and roof rat infestation (Rattus rattus).	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 9.A.2 Develop public health emergency response plans for the Department and coordinate all state and local public health emergency response planning.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 6.B.1 Encourage Firewise Communities principles.	Duplicate.
Action 7.H.3 Identify constituents who would benefit from specific climate research.	Climate research can involve both hazards/non-hazards. For applied research the stakeholders decide what research they want done.
Action 7.A.1 Pursue partnerships with the National Weather Service and State Universities to research the prediction of microburst.	The meteorology/climatology depts. At the universities are engaged w/the NWS in weather/climate issues. NWS forecasters are continually improving their skills/technology and are better able to forecast thunderstorms and microbursts than in the past. Based on this, the action is being deleted from State Plan.
Action 5.D.1 Support work by the National Floodplain Insurance Program (NFIP) Coordinator.	Duplicate – other on 4 <sup>th</sup> page of this document.
Action 6.C.3 Coordinate with the Governor's Forest Health Councils, Arizona State Land Department, US Forest Service, and Bureau of Land Management.	Too broad/unclear of the original intent of this action. Coordination will be part of actions that warrant it and will be specific based on action.
Action 9.A.3 Implement public health surveillance measures that train first responders and front line medical personnel to identify disease outbreaks in their initial phases.	Disease not profiled in update.
Action 9.C.1 Coordinate statewide interagency public health emergency response capacity assessments.	Disease not profiled in update.
Action 9.D.2 Build data/knowledge infrastructure by coordinating outside committees to develop course content & ensure standardization, develop and maintain a Speakers Bureau of subject-matter experts, research and implement new training technologies (w/assistance of the Health Alerting and Reporting Network), and evaluate effectiveness of training programs.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 11.D.1 Provide emergency response guidebooks to all fire and law enforcement vehicles.	Response.
Action 11.D.2 Sponsor, under Arizona State Emergency Response Commission guidance, an annual exercise simulating response to a large-scale hazmat incident.	Already do this for Palo Verde Nuclear Generating Station.
Action 7.B.1 Promote metal power utility poles used in new transmission line construction and used as replacements for existing wooden poles when indicated.	The local isolated, nature of microbursts make it difficult to measure wind speeds as the odds of having a pole w/a wind sensor blown down are very small. Utility companies are handling this action themselves.
Action 2.A.1 Continue to work with the media to increase hazard awareness among the public.	All hazard education/awareness is addressed in several other ways in our actions.
Action 7.H.3 Write grants to fund research projects.	This activity will occur by appropriate agency as needed.



ORIGINAL PLAN ACTIONS, NOW DELETED	
Original Action	Explanation
Action 9.A.4 Encourage each county to conduct vulnerability assessments and develop incident response plans at high-risk public water system facilities and food service establishments, and other areas and programs related to vector control activities and air quality monitoring activities. Provide quarterly report to AZ Health Svcs Dept.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 9.B.1 Develop and maintain the SIREN (Secure Integrated Response Electronic Notification) System, which ensures rapid and highly-secure information exchange within a network of local health departments, health care professionals and emergency response officials in the state to rapidly protect vulnerable assets.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 7.E.1 Encourage the use of weather radios, especially in schools, hospitals and other locations where people congregate to inform them of the approach of severe weather.	Preparedness.
Action 6.A.3 The Fire Management Division of the State Land Department will continue the existing intergovernmental agreements with each County for assistance in the provision of emergency services.	Other than "continuing" something that already exists, there is no action here.
Action 9.C.2 Coordinate statewide interagency exercises that test existing public health emergency response plans.	Disease not profiled in update.
Action 9.C.3 Coordinate statewide planning, development, and implementation of statewide inter-agency exercises and drills, including tabletop and functional exercises.	Disease not profiled in update.
Action 6.E.4 Encourage the UofA's Ext Svc to continue public education efforts on AZ Firewise Comm principles.	Duplicate action.
Action 9.A.1 Develop systems which rapidly detect & respond to suspect bioterrorism incidents and other large-scale or unusual disease events (incl those affecting humans, animals, and plants), and other public health emergencies.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 4.A.1 Encourage all State agencies to participate in the preparation of this plan.	Not necessarily a mitigation action. Stating the obvious/ expected. Correct action: Sponsor annual roundtable discussion w/state & fed stakeholders w/flood responsibilities to discuss mitigation actions for the coming years.
Action 8.A.2 Mandate, where appropriate, the use of xeriscaping or desert landscaping at State facilities and projects.	Landscaping issue is addressed in new actions.
Action 5.C.5 Participate on emergency response plans and encourage continuing tabletop drills.	Several state agencies already participate on a regular basis.
Action 6.C.2 Encourage lobbying at the Congressional level for funding of wildland fire hazard reduction programs.	Too broad. We are exploring what influence which agencies may have in lobbying efforts.
Action 9.B.2 Develop and maintain health emergency communications infrastructure, including fax machines and satellite dishes, at public health and healthcare facilities throughout the state.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 9.D.1 Work closely with County Health Depts to develop and implement statewide vulnerability assessments.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 2.D.2 Encourage the Div Planning Section to include recovery and mitigation as part of response exercises.	Mitigation classes, training & workshops already exist through FEMA and ADEM Training Section.
Action 6.A.1 Encourage communities to adopt ordinances that embrace Firewise Communities principles.	FIREWISE promotion is addressed in other action(s).
Action 6.C.1 Encourage federal agencies, other than those involved in mitigation, to respond to State's request to participate in mitigation efforts.	Too broad.
Action 5.F.1 Work with FEMA and request funding to correct this situation.	Not clear or able to be a stand alone action.
Action 6.A.4 Encourage ea county to have heavy equip oper certified to operate in support role in vicinity of a wildfire.	Preparedness
Action 9.D.3 Coordinate a system that will provide designated county and tribal Public Health staff access to and use of database information to browse/analyze histories of permitted facilities, and nuisance abatements to observe trends and identify needs in public health protection.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.



ORIGINAL PLAN ACTIONS, NOW DELETED	
Original Action	Explanation
Action 9.D.5 Development of common database for Environmental Services, Public Health and other agencies to facilitate effective communication of information on infectious illnesses, citizen complaints and potential environmental disease sentinel observations.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 5.E.2 Encourage flood control districts to assist other cities and Indian Communities within their jurisdictions to improve their Community Rating System (CRS) classification.	Too similar to 5C1.
Action 7.G.2 Create a delivery system for the statistical data.	Included in 7H1 and 7F2.
Action 5.C.3 Encourage the state flood warning task force to continue meeting on a regular basis.	Too general, should be addressed by the task force council or lead.
Action 3.E.1 Support a Mass Evacuation strategy for each County.	Preparedness/Response.
Action 6.D.2 Provide comprehensive data on Arizona wildland fires from all agencies, Arizona wildland risk models, and relative vulnerability of assets.	Not practical actions as different agencies maintain their own data. Eventually, the AZ Firemap Projects may fulfill this role (see 6.D.1)
Action 1.A.5 Encourage communities to prepare animal evacuation plans.	Response.
Action 7.G.1 Calculate statistical probabilities for each type of severe weather event using available data for Arizona.	Included in 7F2.
Action 3.D.1 Initiate a system to test the ability of local emergency managers to activate the Emergency Alert System.	Handled at county level.
Action 1.A.3 Inform land/resource mgrs, incl those engaged in planning/zoning, about potential hazards in their jurisdictions.	All county/most local jurisdictions have approved mitigation plans. This information is provided in those plans already.
Action 4.B.1 After each disaster a meeting of all affected communities and state agencies should be held to discuss what was done right and how mitigation activities can be improved.	This may be premature & a duplicate of efforts. If it is federally declared, there will be mtgs to help affected comms w/projects.
Action 10.C.1 Encourage AZGS and US Geological Survey to work with each County on projects that identify geo-hazards.	The State will request or coordinate additional support from appropriate agencies when necessary.
Action 5.H.1 Establish a partnership consisting of all involved parties and identify responsible agency actions.	Not clear and seems to be referring to other actions.
Action 6.B.3 Ensure appropriate suppression response based on value of resources at risk.	Response/Preparedness.
Action 7.F.4 Create a web-based delivery system for the information.	Included in 7H1 and 7F2.
Action 5.A.3 Ensure completion of emergency action plan for all high hazard classified dams.	Not mitigation.
Action 5.C.9 ADOT will continue to monitor accident rates and traffic counts on un-bridged crossings of major waterways to determine whether bridging is necessary.	No human caused hazards profiled except Haz Materials.
Action 8.C.2 Lend technical support to those agencies tasked with conservation actions.	Not specific enough and would occur when requested regardless of it being included her or not.
Action 7.G.3 Set-up an automated system to update the probabilities on a regular basis.	Included in 7H1 and 7F2.
Action 9.D.4 Acquire GIS equipment and interactive software for county and tribal public health departments to identify patterns of transmission of disease and at-risk facility locations.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 12.A.1 Support local on-going efforts to develop uniform procedures & equip for law enforcement agencies.	Preparedness & Goal 12 related to Terrorism; not profiled in update.
Action 2.B.1 Develop additional programs similar to the floodplain management Community Assistance Visits.	Not in original plan action list (used to produce this table). No info available regarding this action or its origin. 2B1 exists but this is not it.
Action 7.F.1 Assemble a database of climate data from various meteorological networks in AZ.	Included in 7H1 and 7F2.
Action 1.D.2 Assist local governments technically in developing, adopting, and implementing land use ordinances for the purpose of reducing risks from all hazards.	Error, not in original plan action list (used to produce this table). No information available regarding this action or its origin.
Action 3.D.2 Provide tech support for the development of reverse 9-1-1 sys as technically available in ea community.	Response.
Action 5.B.3 If there are any mitigation measures that might protect critical facilities; they should be pursued ASAP.	Too broad and unclear. No specific actions stated.
Action 7.F.3 Set-up an automated system to update the climate statistics on a daily/monthly/annual basis.	Included in 7H1 and 7F2.



ORIGINAL PLAN ACTIONS, NOW DELETED	
Original Action	Explanation
Action 7.H.2 Set-up a research laboratory for addressing the climate issues, including field instrumentation and computing resources.	Not necessary as the funding for each stakeholder driven project will cover this.
Action 12.A.2 Provide program direction in support and development of Citizen Corp programs.	Terrorism not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 5.A.5 New development is to be reviewed prior to issuance of floodplain development permit.	No specific action here, more of a statement. Issue is regulated at local level.
Action 9.C.4 Coordinate the development of a state-wide inter-agency education and training system for public health and healthcare professionals to increase knowledge of public health, epidemiology, bioterrorism, medical management, and emergency response activities.	Disease not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 5.A.1 Regulations should be developed and adopted to stop the development of critical facilities in the 100-year floodplain.	No specific action. Will explore further in the future.
Action 3.E.2 Support a Shelter-in-Place educational program.	Preparedness.
Action 2.D.1 Develop training scenario on mitigation that can be used in Emergency Management Training classes.	Mitigation classes already offered by ADEM & FEMA. See new action.
Action 4.D.1 Adopt a common GIS data system throughout state, county and local government.	A bit too vague, not sure what the benefit would be.
Action 2.A.2 Continue to work to increase hazard awareness among those engaged in real estate sales.	Outreach program (ADEM) would cover all communities, agencies, public (described in other actions)
Action 12.A.3 Promote and expand existing State programs aimed at school violence and family preparedness.	Terrorism not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 10.A.7 Assist owners in rehabilitation of unsafe dams specifically in critical seismic zones.	There are very few seismically unsafe dams in AZ.
Action 12.B.1 Provide leadership role to support State and County Health Departments efforts to standardize hospitals' capability to decontaminate patients in the event of a chemical, biological or radiological event.	Terrorism not profiled in update. Only natural hazards, except for Hazardous Materials Incidents.
Action 1.D.1 Encourage State agencies to adopt a "No Adverse Impact" (NAI) approach to their development and to share development plans with affected communities.	Duplicate – previous page.
Action 5.B.2 Evacuation should be required from critical facilities within the 100-year floodplain as soon as the community is aware that a flood might happen.	Preparedness.
Action 1.A.2 Require all State agencies that develop any facilities through or in a local community to have a development review done by the local community and to develop to the community's standards if they are more stringent than the State's standards.	Unaware of compliance is an issue, no information or background of original action available. Will research at a later date.
Action 10.A.6 Inform public about geologic processes & mat'ls that have potential to cause injury or property damage.	Very similar to another action. Other action revised to include informing public of findings.
Action 2.E.1 Require all State agencies that develop any facilities through or in a local community to have a development review done by the local community and to develop to the community's standards. [See 1.A.2 above]	Very similar to Action 1.A.2 above, same explanation applies here.
Action 1.A.4 Assist local governments technically in developing, adopting, and implementing state of the art building codes with all-hazards mitigation components.	Addressed in revision of another action to "explore ideas on how to promote the use and adoption of..".
Action 10.A.2 Encourage ADWR to work with each County on expanding the geo-physical identification of geological hazards (e.g., use of interferograms).	Not clear on sounds like something ADWR or AZGS would be involved in. Will explore further.
Action 1.B.1 Publicize model building code (e.g., International Building Code).	Not ready to perform this action due to local jurisdiction authority of codes. Revised another actions to "explore ideas on how to promote the use and adoption of..".



ORIGINAL PLAN ACTIONS, NOW DELETED	
Original Action	Explanation
Action 10.B.1 Investigate the feasibility of utilizing recharge to mitigate subsidence.	This action has been re-written and included with New Actions.
Action 10.D.1 Provide access to updated state maps accurately identifying subsidence/earthquake zones.	Combined with Action 10.A.1 above.
Action 1.C.1 Require all State agencies that develop any facilities through or in a local community to have a development review done by the local community and to develop to the community's standards if they are more stringent than the State's standards.	Close duplicate of 2E1 above.
Action 10.A.5 Collaborate w/agencies that serve as hazard info centers & have public information/outreach respons.	This action is addressed in new outreach action (ADEM).
Action 1.E.2 Require proper identification of State jurisdictional unsafe high hazard dams and make those a part of the floodplain evaluation.	Close duplicate of action 5.F.2. "Assessment" of unsafe dams is addressed in 5F2.
Action 11.A.1 In areas of vulnerability, essential/critical facilities such as hospitals, nursing homes, schools, etc., should be indicated on community map. Local responders should evacuate these facilities.	Response. Close duplicate of other HazMat action we are keeping.
Action 10.A.4 Identify areas w/l which data about potentially hazardous geologic processes/ materials are insufficient.	This action has been re-written and included with New Actions.
Action 10.A.8 Encourage use of the statewide flood warning system as an all-hazard alert tool.	Duplicate.
Action 1.A.6 Request the Governor to reinforce Executive Order EO 77-6 or adopt a new (EO) requiring State Agencies to comply with local development regulations and plan review, including No Adverse Impact suggestions.	Very different from action in original list used to produce this table. No info available regarding this action or its origin. However, not aware compliance is an issue, but will research at a later date.
Action 10.A.3 Identify the geologic processes and materials that have potential to cause injury to people or damage to property, and the areas in which they may be encountered.	This action has been re-written and included with New Actions.
Action 10.B.2 Complete a seismic evaluation of state-critical zones and the potential impact to infrastructure.	This action has been re-written and included with New Actions.



ORIGINAL PLAN ACTIONS TO KEEP		
Original Action	Agency	Revised Action
Action 1.E.1 Support establishment of each county government as the central location for geographic information system data regarding the hazards identified in their adopted hazard mitigation plan.	ADEM Mitigation	Encourage local jurisdictions to make their hazard mitigation plans available to public via website, library, etc.
Action 2.B.2 Work with counties and local jurisdictions and provide them technical assistance in writing multi-jurisdictional, All-Hazards Mitigation Plans.	ADEM Mitigation	Continue to provide AZ jurisdictions w/technical assistance in mitigation plan writing & updating. Explore new ways to keep them informed of reqs & aware of their plan and its potential uses/benefits.
Action 5.B.1 Each community should have critical facilities indicated on a map—particularly hospitals, nursing homes, schools, police stations, fire stations, and emergency operations centers.	ADEM Mitigation	Encourage local jurisdictions to map their critical facilities. Provide assistance as necessary.
Action 6.E.1 Ensure that the AZ State Land Dept's Fire Mgmt Division and the AZ Division of Emergency Mgmt's web page provides sufficient guidance on wildfire mitigation to the public.	ADEM Mitigation	Develop a program to coordinate with state agencies to include mitigation information for the public on their websites.
Action 1.B.3 Explore the possibility of giving those mitigation projects submitted for funding a higher priority if they are located in a jurisdiction that has established building codes.	ADEM Mitigation	Explore the possibility of giving funding priority to mitigation projects that are located in jurisdictions with established/adopted building codes.
Action 1.B.2 Educate public officials and the general public on the importance of building codes by providing information to professional organizations, emergency managers, county boards, local governments and to the public and private sector.	ADEM Mitigation	Explore ideas on how the use and adoption of building codes could be promoted to the public and local governments.
Action 2.A.3 Develop information packets and work with the CERT teams to provide hazard and mitigation information to public.	ADEM Mitigation	Develop outreach material on hazards and possible mitigation activities and distribute to the public.
Action 2.B.3 Continue to explore means to assist local jurisdictions to acquire funds to write local mitigation plans.	ADEM Mitigation	Continue to apply for grants on behalf of local jurisdictions or encourage them to apply to ensure means of mitigation planning and updating of plans.
Action 6.A.2 Add requirements to building codes for fire resistive materials for new construction and additions to existing construction.	see →	State Land / Fire Marshall's Office / Dept of Fire, Building and Life Safety.
Action 5.G.3 Encourage adequate funding of the dam repair program designed to assist the state and the owners in the protection life and property.	ADWR	No change



Original Action	Agency	Revised Action
Action 10.D.2 Identify areas of encroachment below AZ jurisdictional dams.	ADWR	Identify areas of encroachment below Arizona jurisdictional dams and notify local municipalities.
Action 5.G.2 Increase the efficiency of the state dam safety program.	ADWR	No change
Action 5.F.2 All area high hazard dams should be identified and made a part of the floodplain map program.	ADWR/ADEM	Encourage counties to assess the appropriateness of including potentially flood-prone areas downstream of unsafe dams in floodplain maps.
Action 8.B.1 Investigate the feasibility of using reclaimed (gray) water for appropriate applications.	ADWR	No change
Action 8.A.1 Develop information on water conservation for media.	ADWR	Develop water conservation outreach materials for distribution through various channels.
Action 8.C.1 Participate in water summits and resource workshops identifying various water conserving mechanisms (retrofitting, landscaping, repairing, etc.).	ADWR	Participate in water summits & resource workshops, identifying various water conservation mechanisms and provide to appropriate public entities.
Action 10.A.1 Public should be made aware of geological hazards and locations where they exist (e.g., subsidence).	AZGS	Provide public access to current maps or locations of geological hazard areas such as earthquake and landslide.
Action 5.C.6 Continue to support all emergency warning systems throughout the State including the Flood Warning Alert System.	ADEM	Promote the use and enhancement of all emergency warning systems statewide.
Action 5.C.7 Identify high-risk areas for post-fire flooding.	ADEM, AZGS, State Land - Forestry	Identify high-risk areas for post-fire flooding & advise the appropriate jurisdictions & agencies of risk.
Action 5.A.2 Encourage bridge or culvert construction where roads are in locations susceptible to flooding.	ADOT Flood Cont Districts	No change
Action 5.C.1 Encourage communities to participate or continue to participate in the Community Rating System (CRS) program and get credit for the various activities that assist property owners in receiving reduced insurance premiums.	ADWR	Encourage communities to begin or continue participation in the Community Rating System (CRS) program to ensure credit for various activities that assist property owners in receiving reduced insurance premiums and to reduce flood damages.
Action 5.E.1 Support work by the National Floodplain Insurance Program (NFIP) Coordinator.	ADWR	No change





Original Action	Agency	Revised Action
Action 5.C.8 Encourage local floodplain managers to evaluate the increased hazard posed by the encroachment of non-native plant species into floodways.	ADWR	Encourage local floodplain managers to evaluate the increased hazard posed by the encroachments of vegetation into floodways.
Action 5.G.1 Monitor encroachment below dams in the floodplain that could result in a change to the hazard classification.	ADWR	No change
Action 5.A.4 As funds become available acquire property located in the 100-year flood plain and return it to open space. (In planning stage).	ADWR/ADEM Flood Control Districts	Assist local jurisdictions in acquiring property located in the 100-year floodplain, beginning with repetitive loss properties.
Action 5.C.4 Continue to expand and enhance the Statewide Flood Warning System to ensure adequate and more timely data to emergency management agencies.	ADWR/ADEM Flood Control Districts	Expand and enhance the Statewide Flood Warning System.
Action 1.A.1 Encourage State agencies to adopt a "No Adverse Impact" (NAI) approach to their development and to share development plans with affected communities. (In planning stage).	ADWR	No change
Action 5.A.6 Continue to encourage homeowners and renters who live in flood prone areas to acquire flood insurance through the NFIP.	ADWR/Flood Control Dist	Continue to encourage homeowners and renters who live in areas that are floodprone to acquire flood insurance through the NFIP.
Action 7.B.2 Perform periodic assessments to identify infrastructure vulnerabilities to severe weather.	ADEM/Counties & Cities	Explore how agencies can identify and address infrastructure modification based on repeated damage caused by storms/severe weather.
Action 7.A.2 Educate the public on the dangers of severe weather through various media and outreach programs.	State Climate Office	Add information on the dangers of severe weather to the State Climatology website and continue weather presentations to K-12 students and community groups.
Action 7.F.2 Generate statistical programs to calculate means, deviations, and extremes of the climate variables.	State Climate Office	Establish climate data in a database to generate statistics on extreme weather events. The statistical data will be available on State Climate website and published as appropriate in the monthly state climate update report.
Action 7.H.1 Assemble a climate database from various meteorological networks in AZ.	State Climate Office	No change
Action 11.C.1 Through the AZSERC, encourage the use of less hazardous alternatives to the chemicals currently used when possible.	ASERC	Encourage the use of less hazardous alternatives to chemicals currently used.



Original Action	Agency	Revised Action
Action 11.B.1 Develop and maintain a database of schools, hospitals, and other key facilities within a one-mile radius of hazmat facilities and make that database available to responders to incidents at those facilities.	ASERC	Develop and maintain a database of critical and key facilities within a one-mile radius of hazardous materials facilities. Make available to responders at those facilities.
Action 6.E.3 Encourage the AZ Communities Firewise Committee (sub-committee of AZ Interagency Coordination Group) to take lead role in ensuring that fire prevention & Firewise information being distributed is accurate, timely, and uniform.	State Land - Forestry	Encourage AZ FIREWISE Communities sub-committee to ensure program and fire prevention information is distributed in an efficient and effective manner.
Action 6.A.5 Encourage cities, towns, and fire districts in each county to enter into intergovernmental agreements for wildfire prevention/control with the AZ State Land Dept.	State Land - Forestry	Intergovernmental agreements will be revised/updated as appropriate. Agreements with newly formed fire districts/departments will be pursued as required.
Action 6.E.2 Encourage each County to distribute wildfire mitigation information to persons applying for building permits in the unincorporated areas of their county.	State Land - Forestry	Distribute wildfire mitigation information to those applying for building permits and those communities seeking Firewise Communities recognition.
Action 6.B.2 Maintain an up to date list of Arizona Communities at Risk.	State Land – Forestry	Maintain up to date list of AZ Communities at Risk (of wildfire) and share with agencies or individuals who can use the information to benefit their respective communities.
Action 6.D.1 Provide resources enabling the Arizona State Land Department's Fire Management Division to create and maintain incident information in GIS databases.	State Land – Forestry	Develop/maintain GIS wildfire incident database. Share data with local jurisdictions and others that may benefit from it.
Action 6.A.6 Support the AZ Dept of Corrections agreements w/AZ State Land Dept to provide supervised inmate work crews, tools & equip for the purpose of forest fuels mgmt, firebreak clearing around structures, wildland fire suppression, & other natural resource management activities.	State Land - Forestry /DOC	Continue to complete projects as appropriate and renew/revise agreements as necessary.



NEW MITIGATION ACTIONS / PROJECTS					
Action	Haz Mit	Estimate			Source
		Agency	Timeframe	Resources	
Perform full upgrade to the State Hazard Mitigation Plan for improvement and enhancements.	All	ADEM/Mit Ofc	June 2009	PDM-C funding & existing staff	ADEM
Explore the feasibility of conducting workshops on the subject of mitigation plan update processes & requirements.	All	ADEM/Mit Ofc	Jan 2008	Existing Staff	ADEM
Develop and maintain a database of past/current funded mitigation projects to track progress and publish project/success stories.	All	ADEM/Mit Ofc	Jan 2008 & On-going	Existing Staff	ADEM
Develop and implement a program to enable jurisdictions statewide to track the progress of the actions/projects from their Plan's Mitigation Strategy.	All	ADEM/Mit Ofc	March 2008 & On-going	Existing Staff	ADEM
Redesign and maintain the ADEM websites including Mitigation Office to include up to date hazard and emergency information and resources.	All	ADEM/Mit Ofc	Sept 2008	Existing Staff Training Software	ADEM
Contact state agencies and local jurisdictions to coordinate including links on their website to ADEM & other emergency management websites helpful to the public.	All	ADEM/Mit Ofc	June 2008	Existing Staff	ADEM
Develop a method of keeping each jurisdiction aware of the requirement to update their mitigation plan and their deadlines.	All	ADEM/Mit Ofc	March 2008	Existing Staff	ADEM
Obtain seismic stations, and monitor and analyze activity to re-assess the seismic hazard (which is underestimated) for the state and identify areas that are particularly vulnerable. Release the information via public outreach to allow jurisdictions to determine appropriate mitigation measures and establish appropriate seismic building codes.	EQ	AZGS	Applying 1660 HMGP & 2008 PDM	Funding	AZGS
Investigate Quaternary (young) faults to estimate the time since the most recent event, average recurrence intervals or slip rates, and to estimate paleoearthquake magnitudes. This information can be used for seismic hazard assessments, including probabilistic earthquake hazard maps, which in turn can be used to plan mitigation projects.	EQ	AZGS		Funding	AZGS
Distribute earthquake hazard information via hard copy and internet (including posters and presentations, monitoring activity updates, etc.).	EQ	AZGS	In progress		AZGS
Identify and map known fissures across the state.	Fissure	AZGS	Sept 2006 & ongoing.	Staff	AZGS
Collaborate with Arizona's universities to research methods of determining the location, extent, duration, and propagation of fissure zones; to establish a long-term monitoring program; and to develop successful mitigation techniques.	Fissure	AZGS		Funding	AZGS



NEW MITIGATION ACTIONS / PROJECTS					
Action	Haz Mit	Agency	Estimate Timeframe	Estimate Resources	Source
Surficial geologic mapping to evaluate piedmont areas that may be prone to flooding.	Floods	AZGS	In progress		AZGS
Identify high-risk areas for post-fire flooding.	Floods	AZGS	In progress in Gila & Pima Counties.	Funding	AZGS
Develop and implement public awareness and education programs involving land use planning, design and flood hazard curricula, flood hazard safety programs, and community risk education.	Floods	AZGS/ADEM		Funding	AZGS
Investigate paleofloods to document sizes of large, ungaged floods on washes and rivers to help determine flood recurrence intervals given short history of stream gages in Arizona. This information would benefit critical facilities, infrastructure, and homeowners by helping them assess mitigation needs.	Floods	AZGS		Funding	AZGS
Map and identify active and paleolandslides in order to identify areas susceptible to landslide occurrence.	Landslide	AZGS		Funding	AZGS
Coordinate research priorities to develop a predictive understanding of landslide processes and triggering mechanisms.	Landslide	AZGS	Debris flow in progress	Funding for other hazards	AZGS
Monitor landslides and establish landslide warning systems.	Landslide	AZGS		Funding	AZGS
Compile and evaluate loss assessment of economic and environmental impacts of landslide assessments, and share the records.	Landslide	AZGS/ADEM		Funding	AZGS
Develop and implement public awareness and education programs involving land use planning, design and landslide hazard curricula, landslide hazard safety programs, and community risk education.	Landslide	AZGS/ADEM		Funding	AZGS
Compile statewide inventory of landslides into GIS and create landslide susceptibility maps for incorporation into state and local hazard mitigation plans.	Landslide	AZGS		Funding	AZGS
Develop robust hazards information clearinghouse system for the systematic collection, interpretation, archiving, and distribution of scientific technical information, databases and maps.	Multi	AZGS		Funding	AZGS
Develop a coordinated geo-hazard rapid response capability, including landslide hazards expertise and equipment required for rapid emergency deployment of real-time data to emergency managers.	Multi	AZGS	July 2007 & ongoing	Funding & staff	AZGS



NEW MITIGATION ACTIONS / PROJECTS					
Action	Haz Mit	Agency	Estimate Timeframe	Estimate Resources	Source
Develop and implement a natural hazards rapid response team to provide expertise and equipment to emergency managers.	Multi	AZGS	July 2007 & ongoing	Funding	AZGS
Amend ARS to include more geo hazard information in real estate disclosures.	Multi	AZGS/ADRE	August 2008	Funding	AZGS
Provide technical assistance to counties on projects that identify geologic hazards.	Multi	AZGS	Aug 2006 & ongoing	Funding	AZGS
Coordinate with the Arizona Geological Alliance and others to inform K-12 teachers about hazards, providing background, resources, and ideas for curriculum development.	Multi	AZGS	July 2007 & ongoing	Possible funding	AZGS
Increase geologic hazard public awareness via workshops, media, outreach and Geologic Extension Svc.	Multi	AZGS	In progress	Continued funding	AZGS
Coordinate with the media to increase hazard awareness among the public.	Multi	AZGS	Sept 2006 & ongoing.	Funding	AZGS
Increase geologic hazard awareness among those engaged in real estate transactions and require disclosure.	Multi	AZGS	In progress	Other hazards need funding	AZGS
Inform land and resource managers and planners about potential geologic hazards within their jurisdictions.	Multi	AZGS	In progress	Continued funding	AZGS
Collaborate with Arizona's universities to research methods of determining the location, extent, duration, and propagation of subsidence; to establish a long-term monitoring program; and to develop successful mitigation techniques.	Subsid	AZGS/ADWR		Funding	AZGS
Partner with other state agencies to increase public awareness of the causes and effects of subsidence, and what can be done to mitigate them.	Subsid	AZGS/ADWR		Funding	AZGS
Investigate areas with the potential for debris flows and flooding in the post-fire environment, and identify high-risk areas for incorporation into mitigation plans and to target areas for mitigation activities.	Wildfire	AZGS	In progress in Gila County	Funding for other areas	AZGS
Encourage cities, communities and other municipalities to specify landscaping requirements based upon Firewise principles.	Wildfire	State Land - Forestry	On-going	Existing Staff	State Land